REMARKS

Claims 1-15 were pending in the Application. Claim 1 is an independent claim and claims 2-10 depend therefrom. Claim 11 is an independent claim and claims 12-15 depend therefrom. Claims 16-22 were previously canceled. Applicant respectfully requests reconsideration of the application in light of the following remarks.

Rejections Under 35 U.S.C. §103(a) – Vince, Hughes and Applicant's Admitted Prior Art (AAPA) (Claims 1-3, 5, 7-9, 11-13 and 15)

On pages 2-8 of the Office Action, claims 1-3, 6, 7-9, 11-13 and 15 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Vince (U.S. Patent No. 6,765,966), in view of Applicant's Admitted Prior Art (hereinafter "AAPA"), and further in view of Hughes et al. (U.S. Publication No. 2001-20038746, hereinafter "Hughes"). The Applicants respectfully traverse such rejections.

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR*

International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

Turning first to independent claim 1, the combination of references cited in the Office Action at least fails to disclose, for example, "[a] method for producing a high definition video signal comprising: performing by at least one circuit: demuxing a high definition program stream into at least one high definition video data stream component and a plurality of companion component data streams; muxing the plurality of companion component data streams with a standard resolution video stream into a standard definition video program stream; demuxing the standard definition video stream to a resolution consistent with the high definition video data stream; scaling the standard definition video stream to a resolution consistent with the high definition video data stream; overlaying the scaled standard definition video stream with the demuxed subpicture data stream; and replacing the standard definition video stream with at least one high definition video data stream to produce a high definition video data signal."

With regard to "[a] method for producing a high definition video signal comprising: performing by at least one circuit: demuxing a high definition program stream into at least one high definition video data stream component and a plurality of companion component data streams," the Office Action alleges that the above claim element is disclosed by Vince's disclosure of its splitter 30. (Office Action, Page 2, Lines 1-18). However, Vince merely discloses using its splitter 30 to provide the HD signal 32 and a copy of the HD signal 34. (*See e.g.*, Vince, Abstract, Column 1, Lines 13-17 and 54-57; Column 2, Lines 3-5; Column 2, Line 65 – Column 3, Line 1). As one of ordinary skill in the art would readily understand, demuxing means to separate a multiplexed signal into its component signals, which is clearly different than providing a copy of an incoming signal. Nowhere in Vince is there any disclosure of demuxing,

let alone "demuxing a high definition program stream into at least one high definition video data stream component and a plurality of companion component data streams."

In fact, nowhere in Vince is there any disclosure regarding "a plurality of companion component data streams." The Office Action alleges that Vince's disclosure of protocol data teaches "a plurality of component data streams." (Office Action, Page 3, Lines 19-22). However, Vince's protocol data is not a data stream. Further, even if Vince's protocol data could be considered a data stream, Vince fails to disclose a plurality of protocol data data streams. One of ordinary skill in the art would clearly be able to distinguish between protocol data and a plurality of component data streams.

As discussed on Pages 9-10 of the Applicant's November 24, 2008 Appeal Brief, Hughes, AAPA and Garrido fail to remedy the deficiencies of Vince. Thus, the combination of Vince, AAPA and Hughes clearly fail to teach "[a] method for producing a high definition video signal comprising: performing by at least one circuit: demuxing a high definition program stream into at least one high definition video data stream component and a plurality of companion component data streams," as set forth in Applicant's independent claim 1.

With regard to "muxing the plurality of companion component data streams with a standard resolution video stream into a standard definition video program stream," the Office Action alleges that Vince's disclosure of multiplexing SD version 34' and with HD version 32 into multiplexed data stream and then inserting redefined protocol data into the multiplexed data stream discloses the Applicant's claim limitations. (Office Action, Page 3, Line 22 – Page 4, Line 10). However, as discussed above, the Applicant first notes that Vince's protocol data is not a data stream, let alone a plurality of companion component data streams. Second, the Applicant notes that Vince's multiplexed data stream is not a standard definition video program stream because it includes the multiplexed HD signal 32. Third, the Applicant notes that **inserting protocol data** into a multiplexed data stream is different than "**muxing the plurality of companion component data streams** with a standard resolution video stream into a standard

definition video program stream." Specifically, inserting data into a multiplexed data stream is different than muxing data streams. As discussed on Pages 11-13 of the Applicant's November 24, 2008 Appeal Brief, Hughes, AAPA and Garrido fail to remedy the deficiencies of Vince. Thus, the combination of Vince, AAPA and Hughes clearly fail to teach "muxing the plurality of companion component data streams with a standard resolution video stream into a standard definition video program stream," as set forth in Applicant's independent claim 1.

With regard to "demuxing the standard definition program stream into a standard definition video data stream, and a subpicture data stream," and "overlaying the scaled standard definition video stream with the demuxed subpicture data stream," the Office Action alleges that AAPA Figure 2 teaches the Applicant's claim limitations. However, the Applicant notes that nothing in AAPA Figure 2 teaches "overlaying the **scaled** standard definition video stream with the demuxed subpicture data stream," as recited in Applicant's independent claim 1. As discussed on Pages 11-15 of the Applicant's November 24, 2008 Appeal Brief, Hughes, AAPA and Garrido fail to remedy the deficiencies of Vince. Thus, the combination of Vince, AAPA and Hughes clearly fail to teach "demuxing the standard definition program stream into a standard definition video data stream, and a subpicture data stream," and "overlaying the scaled standard definition video stream with the demuxed subpicture data stream," as set forth in Applicant's independent claim 1.

With regard to "scaling the standard definition video stream to a resolution consistent with the high definition video data stream," the Office Action alleges that Vince's Figure 1, element 50 teaches that Applicant's claim limitations. (Office Action, Page 4, Lines 10-12). However, the Applicant notes that Vince's Figure 1, element 50 discloses "[t]he decoded **HD signal** is **re-scaled** at a re-scaler 50 **into SD format**." (Vince, Column 3, Lines 3-5). The Applicant notes that rescaling a decoded HD signal into SD format is different than "**scaling** the **standard definition video stream** **to a resolution consistent with the high definition video**

data stream," as recited in Applicant's independent claim 1. As discussed on Pages 13-15 of the Applicant's November 24, 2008 Appeal Brief, Hughes, AAPA and Garrido fail to remedy the deficiencies of Vince. Thus, the combination of Vince, AAPA and Hughes clearly fail to teach "scaling the standard definition video stream to a resolution consistent with the high definition video data stream," as set forth in Applicant's independent claim 1.

With regard to "replacing the standard definition video stream with at least one high definition video data stream to produce a high definition video data signal," the Office Action alleges that the above claim element is disclosed in Hughes' Figure 5. However, Hughes' Paragraph [0044] states that "[t]he outputs of decompressor 304 and decompressor 306 are coupled to a decoding and combining module 308, which decodes and combines the base layer data with the enhancement layer data to generate a high-resolution display 310." Hughes' teaching of combining base layer data with enhancement layer data is not the same as "replacing the standard definition video stream with the at least one high definition video data stream to produce a high definition video data signal," as set forth in Applicant's independent claim 1.

Accordingly, for at least the reasons stated previously, the Applicants submit that claim 1 is allowable over the combination of references cited in the Office Action, as are all claims depending therefrom, including claims 2-10. The Applicants also submit that each of claims 2-10 is independently allowable.

For example, with regard to Applicant's dependent claim 2, the Office Action alleges that Vince discloses prior to demuxing the high definition program stream, receiving a program data stream. However, as noted above with regard to Applicant's independent claim 1, nowhere in Vince is there any disclosure of demuxing. Thus, Vince cannot teach "prior to demuxing the high definition program stream, receiving a program data stream," as set forth in Applicant's dependent claim 2.

As another example, the Office Action alleges that Vince's teaching of encrypting its multiplexed signal 75 teaches "wherein the high definition program stream is in encrypted format," as set forth in Applicant's dependent claim 5. However, the Applicant notes that Applicant's "high definition program stream" is what is demuxed into at least one high definition video data stream component and a plurality of companion component data streams. It appears that the Office Action is confusing Applicant's "high definition video data signal" outputted with Applicant's "high definition program stream" that is demuxed. Vince fails to disclose that its television signal 100 is in encrypted format. Thus, Vince's teaching of encrypting its multiplexed signal 75 is unrelated to and fails to teach "wherein the high definition program stream is in encrypted format," as recited in Applicant's dependent claim 5.

Thus, the Applicant respectfully requests that the rejections of claims 1-3, 5 and 7-9 under 35 U.S.C. § 103(a), be withdrawn.

Turning next to independent claim 11, the combination of references cited in the Office Action at least fails to disclose, for example, "a high definition program stream demuxer for extracting a plurality of component data streams from a high definition program stream, the plurality of component data streams comprising at least one high definition video data stream and a set of other component data streams; a generator for generating a standard definition video stream; a muxer for combining the generated standard definition video stream with the set of other component data streams into a standard definition program stream; a video scaler for increasing the resolution of the standard definition video stream to a resolution consistent with the high definition video stream; a video mixer for replacing the scaled up standard definition video stream with the high definition video data stream; and an encrypter for creating a high definition video data signal from the high definition video data stream and the set of other component data streams."

The Office Action rejects the Applicant's independent claim 11 for the same reasons as set forth with regard to Applicant's independent claim 1. (Office Action, Page 7, Lines 5-8).

Thus, for at least the reasons set forth above with regard to Applicant's independent claim 1, the Applicant notes that independent claim 11 is also allowable.

Further, the Office Action alleges that Vince teaches "an encrypter for creating a high definition video data signal from the high definition video data stream and the set of other component data streams," by disclosing an encrypter 90 for encrypting the multiplexed signal 75. (Office Action, Page 7, Lines 8-17). The Applicant notes, however, that Vince's multiplexed signal 75 includes an SD version of the incoming television signal 100. (See e.g., Vince, Column 5, Lines 10-12). The Applicant notes that one of ordinary skill in the art would understand that a multiplexed signal comprising an SD version of a television signal is not a high definition video data signal as set forth in Applicant's independent claim 11.

Thus, for at least the reasons set forth above, the Applicant notes that the combination of references clearly fails to disclose "a high definition program stream demuxer for extracting a plurality of component data streams from a high definition program stream, the plurality of component data streams comprising at least one high definition video data stream and a set of other component data streams; a generator for generating a standard definition video stream; a muxer for combining the generated standard definition video stream with the set of other component data streams into a standard definition program stream; a video scaler for increasing the resolution of the standard definition video stream to a resolution consistent with the high definition video stream; a video mixer for replacing the scaled up standard definition video stream with the high definition video data stream; and an encrypter for creating a high definition video data signal from the high definition video data stream and the set of other component data streams," as set forth in Applicant's independent claim 11.

Accordingly, for at least the reasons stated previously, the Applicants submit that claim 11 is allowable over the combination of references cited in the Office Action, as are all claims depending therefrom, including claims 12-15. The Applicants also submit that each of claims 12-15 is independently allowable.

For example, with regard to Applicant's dependent claim 12, the Office Action alleges

that Hughes disclosure of a "storage medium, DVD, fig. 1" teaches a receiver. (Office Action, Page 8, Lines 2-3). The Applicant notes that a receiver is different than a storage medium and one skilled in the art would not confuse the two.

As another example, the Office Action alleges that Vince's teaching of encrypting its multiplexed signal 75 teaches "wherein the received program data stream is in encrypted format," as set forth in Applicant's dependent claim 13. However, the Applicant notes that Applicant's "received program data stream" is what is demuxed into a plurality of component data streams. It appears that the Office Action is confusing Applicant's "high definition video data signal" outputted with Applicant's "received program data stream" that is demuxed. Vince fails to disclose that its television signal 100 is in encrypted format. Thus, Vince's teaching of encrypting its multiplexed signal 75 is unrelated to and fails to teach "wherein the received program data stream is in encrypted format," as recited in Applicant's dependent claim 13.

Also, with regard to Applicant's dependent claim 15, the Office Action alleges that Vince's demodulator 20 is a router for determining if the received program data stream is a high definition program stream. However, Vince does not teach that its demodulator 20 detects whether the data stream is a high definition signal, as alleged in the Office Action. Rather, the decoder 40 (which is not a router) determines whether the second signal is an HD signal. (*See e.g.*, Vince, Column 3, Lines 1-3). Thus, Vince fails to teach "a router for determining if the received program data stream is a high definition program stream," as set forth in Applicant's dependent claim 15.

Thus, the Applicant respectfully requests that the rejections of claims 11-13 and 15 under 35 U.S.C. § 103(a), be withdrawn.

Rejections Under 35 U.S.C. § 103(a) – Vince, AAPA, Hughes, and Garrido (Claim 4)

On Pages 8-9 of the Office Action, claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Vince, in view of AAPA, in further view of Hughes, and further in view of

Garrido et al. (U.S. Publication No. 2004/0022318, hereinafter "Garrido"). The Applicant respectfully submits that claim 4 depend either directly or indirectly from independent claim 1. Applicant believes that claim 1 is allowable over the proposed combination of references, in that Garrido fails to overcome the deficiencies of Vince, in view of AAPA, in further view of Hughes, as set forth above. Because claim 4 depends from independent claim 1, Applicant respectfully submits that claim 4 is allowable over the proposed combination of Vince in view of AAPA in further view of Hughes and further in view of Garrido, as well. Applicant also asserts that claim 4 is independently allowable.

For example, the Applicant notes that there is no motivation to combine Vince and Garrido. Specifically, the Office Action alleges that Vince's protocol data is a plurality of companion component data streams; however, one of ordinary skill in the art would not use Garrido's audio data stream, subpicture data stream, and navigational data stream in place of Vince protocol data. In fact, Vince would be rendered inoperable with such replacement. Thus, the Applicant notes that the combination of references would be inoperable and fail to disclose the Applicant's claim limitations.

Therefore, for at least the reasons set forth above, Applicant respectfully requests that the rejection of claim 4 under 35 U.S.C. §103(a) be withdrawn.

Rejections Under 35 U.S.C. § 103(a) – Vince, AAPA, Hughes and Mercier (Claims 6 and 14)

On Pages 9-10 of the Office Action, claims 6 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Vince, in view of AAPA, in further view of Hughes and further in view of Mercier (U.S. Publication No. 2005/0114909). The Applicant respectfully submits that claims 6 and 14 depend either directly or indirectly from independent claims 1 and 11, respectively. Applicant believes that claims 1 and 11 are allowable over the proposed combination of references, in that Mercier fails to overcome the deficiencies of Vince, in view of AAPA, in further view of Hughes, as set forth above. Because claims 6 and 14 depend from

independent claims 1 and 11, respectively, Applicant respectfully submits that claims 6 and 14 are allowable over the proposed combination of Vince, in view of AAPA, in further view of Hughes and further in view of Mercier, as well. Applicant also asserts that each of claims 6 and 14 is independently allowable. Therefore, for at least the reasons set forth above, Applicant respectfully requests that the rejections of claims 6 and 14 under 35 U.S.C. §103(a) be withdrawn.

Rejections Under 35 U.S.C. §103(a) – Vince, AAPA, Hughes and Chen (Claim 10)

On Pages 10-11, claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Vince, in view of AAPA, in further view of Hughes, and further in view of Chen et al., "A Single-Chip MPEP-2 MP@ML Audio/Video Encoder/Decoder with a Programmable Video Interface Unit," IEEE, pp. 941-944, 2001 (hereinafter "Chen"). The Applicant respectfully submits that claim 10 depends either directly or indirectly from independent claim 1. Applicant believes that claim 1 is allowable over the proposed combination of references, in that Chen fails to overcome the deficiencies of Vince, in view of AAPA and further in view of Hughes, as set forth above. Because claim 10 depends from independent claim 1, Applicant respectfully submits that claim 10 is allowable over the proposed combination of Vince, in view of AAPA, in further view of Hughes and further in view of Chen, as well. Applicant also asserts that claim 10 is independently allowable.

As noted on pages 33-34 of the Applicant's November 24, 2008 Appeal Brief, the Applicant further submits that the Office Action fails to make a *prima facie* case of obviousness because the Chen reference provided to the Applicant by the Examiner (attached as Evidence Exhibit 4 of Applicant's November 24, 2008 Appeal Brief) has a blank Page 943 (i.e., the reference is missing the sections between 3.4 and 4.2). Thus, the Examiner has failed to provide the Applicant with cited sections of Chen relied on in the Office Action (i.e., section 4.1).

Therefore, for at least the reasons set forth above, Applicant respectfully requests that the

rejection of claim 10 under 35 U.S.C. §103(a) be withdrawn.

Final Matters

The Office Action makes various statements regarding claims 1-15, 35 U.S.C. § 103(a), the Vince reference, the Applicant's Admitted Prior Art (AAPA), the Hughes reference, the Garrido reference, the Mercier reference, the Chen reference, one of ordinary skill in the art, etc. that are now moot in view of the above amendments and/or arguments. Thus, the Applicant will not address all of such statements at the present time. However, the Applicant expressly reserves the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

Applicant reserves the right to argue additional reasons supporting the allowability of claims 1-15 should the need arise in the future.

CONCLUSION

Applicant respectfully submits that all of claims 1-15 are in condition for allowance, and requests that the application be passed to issue.

Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Please charge any required fees not paid herewith or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Dated: December 4, 2009 By: /Philip Henry Sheridan/
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